

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A hair-cosmetic composition comprising, in a cosmetically acceptable medium, ~~at least one~~ film-forming gradient copolymer containing from 5 to 25 percent by weight of a methacrylic acid hydrophilic monomeric residue, from 50 to 90 percent by weight of an ethyl acrylate monomeric residue ~~resulting from at least one monomer which is capable of forming a homopolymer having a T_g less than or equal to 20 °C~~, and 5 to 25 percent by weight of an additional a styrene monomeric residue, wherein the ~~at least one~~ film-forming gradient copolymer exhibits a mass polydispersity index (I_p) less than or equal to 2.5,

and wherein the composition is able to form a film that has at least one of the following characteristics:

- a strain at break ϵ_r ranging from 5% to 2500%, and/or
- a Young's modulus ranging from 0.5 to 1200 MPa, and/or
- an instantaneous elastic recovery ϵ_i greater than or equal to 10%.

2. (Currently Amended) The composition according to Claim 1, wherein the ~~at least one~~ film-forming gradient copolymer exhibits a mass polydispersity index (I_p) ranging from 1.1 to 2.3.

3. (Currently Amended) The composition according to Claim 2, wherein the at least one film-forming gradient copolymer exhibits a mass polydispersity index (I_p) ranging from 1.15 to 2.0.

4. (Currently Amended) The composition according to Claim 3, wherein the at least one film-forming gradient copolymer exhibits a mass polydispersity index (I_p) ranging from 1.2 to 1.9.

5. (Original) The composition according to Claim 1, wherein the composition forms a film that has a strain at break ϵ_r ranging from 10% to 2000%.

6. (Original) The composition according to Claim 5, wherein the composition forms a film that has a strain at break ϵ_r ranging from 15% to 1000%.

7. (Original) The composition according to Claim 1, wherein the composition forms a film that has a Young's modulus ranging from 1 to 1000 MPa.

8. (Original) The composition according to Claim 7, wherein the composition forms a film that has a Young's modulus ranging from 2 to 800 MPa.

9. (Original) The composition according to Claim 1, wherein the composition forms a film that has an instantaneous elastic recovery ϵ_i greater than or equal to 25%.

10. (Original) The composition according to Claim 9, wherein the composition forms a film that has an instantaneous elastic recovery ϵ_i greater than or equal to 35%.

11. (Original) The composition according to Claim 10, wherein the composition forms a film that has an instantaneous elastic recovery ϵ_i ranging from 10% to 100%.

12. (Original) The composition according to Claim 11, wherein the composition forms a film that has an instantaneous elastic recovery ϵ_i ranging from 25% to 98%.

13. (Original) The composition according to Claim 12, wherein the composition forms a film that has an instantaneous elastic recovery ϵ_i ranging from 35% to 95%.

14. (Currently Amended) The composition according to Claim 1, wherein the weight-average molecular weight of the ~~at least one~~ film-forming gradient copolymer ranges from 5,000 g/mol to 1,000,000 g/mol.

15. (Currently Amended) The composition according to Claim 14, wherein the weight-average molecular weight of the ~~at least one~~ film-forming gradient copolymer ranges from 5,500 g/mol to 800,000 g/mol.

16. (Currently Amended) The composition according to Claim 15, wherein the weight-average molecular weight of the ~~at least one~~ film-forming gradient copolymer ranges from 6,000 g/mol to 500,000 g/mol.

17. (Currently Amended) The composition according to Claim 1, wherein the number-average molecular weight of the ~~at least one~~ film-forming gradient copolymer ranges from 5,000 g/mol to 1,000,000 g/mol.

18. (Currently Amended) The composition according to Claim 17, wherein the number-average molecular weight of the ~~at least one~~ film-forming gradient copolymer ranges from 5,500 g/mol to 800,000 g/mol.

19. (Currently Amended) The composition according to Claim 18, wherein the number-average molecular weight of the ~~at least one~~ film-forming gradient copolymer ranges from 6,000 g/mol to 500,000 g/mol.

20. (Canceled)

21. (Currently Amended) The composition according to Claim 1, wherein the ~~at least one~~ film-forming gradient copolymer is such that on a curve of liquid adsorption chromatography ("LAC"), which shows the proportion of polymers as a function of the elution volume, the difference ($V^{1/2}_{\max} - V^{1/2}_{\min}$) is less than or equal to 3.5, wherein " $V^{1/2}_{\min}$ " is the minimum value of the elution volume at mid-height of the curve, and " $V^{1/2}_{\max}$ " is the maximum value of the elution volume at mid-height of the curve.

22. (Original) The composition according to Claim 21, wherein the difference ($V^{1/2}\text{max} - V^{1/2}\text{min}$) ranges from 1 to 2.8.

23. (Original) The composition according to Claim 22, wherein the difference ($V^{1/2}\text{max} - V^{1/2}\text{min}$) ranges from 1.2 to 2.5.

24-79. (Canceled)

80. (Currently Amended) The composition according to Claim 1, wherein the at least one film-forming gradient copolymer is present in an amount ranging from 0.1% to 60% by weight, relative to the total weight of the composition.

81. (Currently Amended) The composition according to Claim 80, wherein the at least one film-forming gradient copolymer is present in an amount ranging from 0.5% to 40% by weight, relative to the total weight of the composition.

82. (Currently Amended) The composition according to Claim 81, wherein the at least one film-forming gradient copolymer is present in an amount ranging from 1% to 35% by weight, relative to the total weight of the composition.

83. (Currently Amended) The composition according to Claim 82, wherein the at least one film-forming gradient copolymer is present in an amount ranging from 5% to 30% by weight, relative to the total weight of the composition.

84. (Currently Amended) The composition according to Claim 1, wherein the at least one film-forming gradient copolymer is present in dissolved form or else in the form of an aqueous or organic dispersion.

85. (Original) The composition according to Claim 84, wherein the dissolved form is present in water or an organic solvent.

86. (Original) The composition according to Claim 1, comprising at least one additional constituent chosen from water; organic solvents; anionic, cationic, nonionic and amphoteric film-forming polymers; fixing polymers; volatile and non-volatile silicones; anionic, cationic, amphoteric and nonionic surfactants, thickening agents, pearlescent agents, UV filters, free-radical scavengers, perfumes, preservatives, pigments and colorants, pH adjusters, solubilizing agents, plasticizers, antifoaming agents, waxes and oils, vitamins, conditioning agents and organic and mineral particles, synthetic particles and particles of natural origin.

87-89. (Canceled)

90. (Original) The composition according to Claim 1, said composition being a haircare product for maintaining a hairstyle or for shaping the hair chosen from shampoos, gels, setting lotions, lotions for blow-drying, and fixing and styling compositions.

91. (Original) The composition according to Claim 90, wherein the styling compositions are chosen from lacquers and sprays.

92-93. (Canceled)